Remarks

In the Office Action dated August 28, 2008, the following objections and rejections are present: claims 1-5, 8-10 and 12-13 stand objected to due to informalities; claim 11 stands rejected under 35 U.S.C. § 102(b) over the Ohkawa reference (US Patent No. 4,665,412). Claims 1-5, 8-10 and 12-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten. Unless explicitly stated below, Applicant does not acquiesce to any objection, rejection or averment made in the Office Action.

Applicant traverses the objection to claim 1 because the term "substantially" is commonly used in the field of semiconducting manufacturing and does not render the claim indefinite. As explained at Section 2173.05(b)(D) of the M.P.E.P., "[t]he term "substantially" is often used in conjunction with another term to describe a particular characteristic of the claimed invention. It is a broad term. *In re Nehrenberg*, 280 F.2d 161, 126 USPQ 383 (CCPA 1960). The court held that the limitation "to substantially increase the efficiency of the compound as a copper extractant" was definite in view of the general guidelines contained in the specification. *In re Mattison*, 509 F.2d 563, 184 USPQ 484 (CCPA 1975). The court held that the limitation "which produces substantially equal E and H plane illumination patterns" was definite because one of ordinary skill in the art would know what was meant by "substantially equal." *Andrew Corp. v. Gabriel Electronics*, 847 F.2d 819, 6 USPQ2d 2010 (Fed. Cir. 1988)." This term, "substantially", is exemplified in the specification as provided in several examples and shown in the figures, is used in a multitude of issued patents and would be clearly understood by those in the art. As consistent with the drawings, "substantially" parallel is clearly shown by structures that are generally parallel but may, for example, not be perfectly parallel (*e.g.*, via slight manufacturing differences, it may be impossible to align structures perfectly parallel). *See, e.g.,* Specification at paragraph 16. This is consistent with known approaches to semiconductor device manufacture.

Applicant has amended claim 1 to replace the term "the further quantum well" with "a further quantum well" to correct an antecedent basis informality.

In view of the amendment to claim 1 and the indication of allowability in the Office Action, Applicant understands that claims 1-5, 8-10 and 12 are allowable.

Applicant respectfully traverses the Section 102(b) rejection of claim 11 because the cited '412 reference does not disclose a multilayer substrate having a quantum well with a semiconductor layer that is enclosed by high-k materials with different dielectric constants and sandwiched by further layers of an electrical insulating material. For instance, while the cited portions of columns 3 and 10 describe materials that may have a relatively high dielectric constant (*e.g.*, relative to silicon dioxide), none of the cited portions indicate that the example layers include different high-k materials used to enclose a single semiconductor layer. In addition, the cited layers are alternating layers that do not appear to enclose a semiconductor layer of a quantum well. Applicant therefore believes that the Section 102(b) rejections are improper and should be removed.

Applicant has added new claim 22, which is directed to limitations similar to those in claim 1 and thus is believed to be allowable in view of the Office Action's indication of allowability of claim 1. Support for these limitations is found in the specification (which implicitly indicates support of claim 1).

In view of the remarks above, Applicant believes that each of the rejections/objections has been overcome and the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is asked to contact the agent overseeing the application file, Peter Zawilski, of NXP Corporation at (408) 474-9063.

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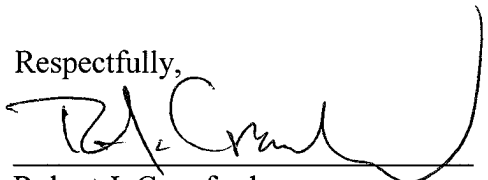
Respectfully,



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